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Subj: MODIS SDST Minutes

MODIS Science Data Support Team (SDST) Meeting Minutes 09/04/92

ATTENDEES: Phil Ardanuy, Lloyd Carpenter, Paul Chan, Jy-Tai Chang, Larry Fishtahler, Al Fleig, Tom Goff, Liam Gumley, Paul Hubanks, Ed Masuoka, J. J. Pan, Shahin Samadi, Steve Ungar, Lalit Wanchoo.

NEXT MEETING: Date Time Building Room
Friday, September 11 10:00 am 22 G95

TOPICS:

1. MODIS AIRBORNE SIMULATOR (MAS): Liam Gumley reported on MAS data processing and software development. Special attention was given to processing the data from the ASTEX flight of June 17, 1992, which had been identified by Mike King as a high priority data set. The data were processed and delivered to Code 913 on Exabyte 8500 tape. The tape was copied to Exabyte 8200 for compatibility with Code 913 computer systems.

Quicklook GIF images were created for all of the June 17th flight lines.

Liam was notified by Tom Arnold that the coefficients provided by Tom for the visible/near-IR channels during FIRE were in error. These data sets will require processing with the correct coefficients.

A brief Fortran program was written for Si-Chee Tsay demonstrating the retrieval of radiance values from a MAS netCDF flight line file.

2. MODIS HIGHER-LEVEL PROCESSING SHELL DESIGN: J.J. Pan developed a list of data products from other instruments which are required as input to MODIS Level-2 algorithms, based upon information in the SPSO database. (Some of this information has since been modified.)

A revised version of the dependency diagram indicates which products are "At-Launch", and which are "Post-Launch".

3. CONTRADICTIONS IN DATA DEPENDENCIES: Phil Ardanuy addressed several specific issues which show up in the MODIS data dependency diagram, identifying the implications and possible work-arounds. The products in question are:

MODIS Glint Field,

MODIS Water Vapor and Aerosol Single Scattering Albedo, and

MODIS Total Column Ozone and Precipitable Water.

4. EOS AM-1 OPERATIONS MEETING: Tom Goff reported on the items of interest which were discussed in the EOS AM-1 Operations Meeting on August 27-28, 1992. The topics included:

TDRSS Contacts: The TDRSS Onboard Navigation System (TONS)

designers recommend two five-minute contacts per orbit for optimum navigation (which suggests two data sets per orbit).

TDRSS capacity may not be able to handle all of the EOS AM-1 data requirements during 1998, depending upon the length and number of contacts per orbit.

Navigation Accuracy: There are indications that TONS may provide position accuracies of the order of twenty meters, and attitude accuracies of eight to eleven seconds of arc, with optimum contacts.

Discussion of the EOS AM-1 meeting led to the following MODIS SDST questions to EOS Operations (These questions are not meant to generate requirements.):

Will Level-0 data be in time order, with no overlaps, and with no gaps which will be filled later?

Will quick-look data also be delivered as part of the Level-0 data stream?

Will the position and attitude data received from the spacecraft be the best and final (no post-processing)?

5. MODIS LEVEL-0 PACKET SIMULATOR: Tom Goff presented a second review draft of the MODIS Level-0 packet simulator requirements specification. Al Fleig reported that Jerry Hyde of SBRC says they will generate a packet simulator, and they are interested in studying joint requirements and pursuing a joint effort.

6. MODIS LEVEL-1B NAVIGATION: Paul Hubanks presented a list of existing software for possible use to generate orbits, compute earth location of pixels, and produce solar and lunar ephemerides.

ACTION ITEMS:

04/24/92 [Lloyd Carpenter & Team] Develop a staffing plan for the accomplishment of the tasks shown on the schedule. (A draft version of the staffing plan has been developed and delivered.) STATUS: Open. Due Date: 06/12/92

06/12/92 [Tom Goff, Carroll Hood] Develop separate detailed schedules using Microsoft Project for Level-1A and -1B software design and development. (Updated results were included in the handout and presented at the meeting on July 24, 1992.) STATUS: Open. Due Date: 07/10/92

07/31/92 [Ed Masuoka] Implement SLIP on the Sun 670. (Waiting on addresses from Code 930.) STATUS: Open. Due Date: 08/28/92

07/31/92 [Tom Goff, Ed Masuoka, Al Fleig] Develop the purpose and requirements for a packet simulator. Get more information on the packet simulator being developed by SBRC. (An updated requirements specification was included in the handout. Al Fleig reported that Jerry Hyde of SBRC says they will generate a packet simulator, and they are interested in studying joint requirements and pursuing a joint effort.) STATUS: Open. Due Date: 09/04/92

08/21/92 [Paul Hubanks] Check to see what existing geolocation and pixel navigation software is available, and what EOSDIS plans to provide. (A report was included in the handout.) STATUS: Open. Due Date: 09/04/92